

REMARKS

The Applicant thanks the Examiner for the careful examination of this application and respectfully requests the entry of the amendments indicated hereinabove.

Claims 1-13 are pending. Of the pending claim set, Claims 1-2, 7-8 and 10-11 are rejected while Claims 3-6, 9 and 12-13 are objected to. Claims 1 and 7 are amended and Claim 14 is added hereinabove.

Amended Claim 1 positively recites forming a halo structure, forming a trench that removes a portion of the halo structure, and then forming a semiconductor material layer in the trench. These advantageously claimed features are not taught or suggested by the patent granted to Park et al.

Park et al. teaches away from the advantageously claimed invention because Park et al. teaches a process requiring two halo formation steps (column 2, lines 28-32, column 5 lines 11-41, FIGS. 4-6) versus the single halo step that is advantageously claimed. In addition, Park et al. teaches away from the advantageously claimed invention because Park et al. teaches that the HDD implant (e.g. the implantation of the extension regions) is performed before the formation of the trench (column 4 lines 26-40, FIGS. 1-2) versus after the

formation of the trench and the formation of the semiconductor material layer within the trench as advantageously claimed.

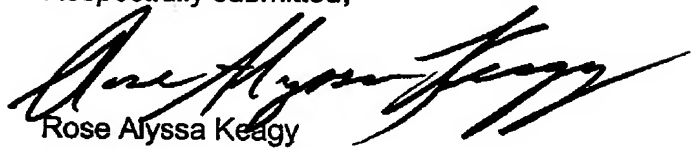
Furthermore, Park et al. teaches away from the advantageously claimed invention because Park et al. teaches in the Detailed Description that the first halo regions (38) are bounded by extension regions (40) (column 4, lines 27-28 and 36-37). However, the Applicant notes that FIGS. 1-2, 4-5, and 7-10 illustrate that Park et al. teaches that the extension regions (40) are bounded by the first halo regions (38) (this contradictory structure is also claimed in Park's Claims 4, 12, and 19). Regardless which version of the Park et al. teaching is used, it is not the advantageously claimed method of the Applicant that is free of such limitations.

Moreover, the Applicant respectfully traverses the statement in the Office Action (page 2) that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an angle implant as taught by applicant's admitted prior art in Park's process". The Applicant submits that one of ordinary skill in the art would not combine the Applicant's prior art with Park et al.'s process because Park et al. teaches a low energy implant process (column 4 lines 10-19, claims 2, 11, and 16) but the Applicant teaches a typical high energy implant process (including in the admitted prior art). The Applicant's position is even supported by Park et al. because Park et al. states that the high energy halo process (taught by the Applicant) is inferior (column 7 lines 37-57).

Therefore, the Applicant respectfully traverses the Examiner's rejection of Claim 1 and respectfully asserts that Claim 1 is patentable over Park et al. Furthermore, Claims 2-14 are allowable for depending on allowable independent Claim 1 and, in combination, including limitations not taught or described in the references of record.

This application is believed to be in condition for allowance. Reexamination and reconsideration is requested.

Respectfully submitted,



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